

Science Inquiry 4.3

Name _____ # _____

Investigating Seasonal Variations at Different Latitudes

Analyzes and Interprets Data

A. Describe the pattern of sunrise and sunset times for the equator (Quito, Ecuador). Why do you think this is so?

B. How do sunrise and sunset times in Antarctica compare to those in Alaska?

C. How does the apparent path of the Sun across the sky change during the summer as you look at the data for Milwaukee, WI?

D. No matter what the location is on Sept. 21 and March 21 there should be 12 hours of daylight and 12 hours of darkness. Is this true according to your data?

Critical Thinking

E. How might the apparent height of the Sun in the sky and the length of daylight affect temperature for a particular latitude? (Hint: what season does it tend to be when the days are longest and the sun is highest in the sky?)

F. What do you think is responsible for the differences in the apparent path of the Sun and in the sunrise and sunset times at different latitudes throughout the year?

Challenge:

If Alaska receives more hours of daylight in June than Florida, why is it colder in Alaska in June than in Florida?

What are the word origins for “equinox” and “solstice”?